## 2006 FACT SHEET

# NOAA FISHERIES NATIONAL MARINE FISHERIES SERVICE GALVESTON LABORATORY

http://galveston.ssp.nmfs.gov

**Affiliation**: U.S. Department of Commerce

NOAA National Marine Fisheries Service

Southeast Fisheries Science Center

**Location**: 4700 Avenue U, Galveston, TX 77551

Telephone (409) 766-3500, Fax (409) 766-3508

**Founded**: In 1929, a U. S. Fish & Wildlife Service Fisheries field station was

established in Galveston on Offatts Bayou, directed by A.E. Hopkins,

Ph.D.

**Original Mission**: Oyster Research

**Early Research:** In 1931, the Laboratory became one of four FWS field stations to do

shrimp research in the Gulf of Mexico directed out of New Orleans

by F.W. Weymouth.

**Present Facility**: Established in 1950, at the old U.S. Army Ft. Crockett in Galveston, as a

Bureau of Commercial Fisheries Laboratory. Historical designation.

Undergoing 3-phase renovation.

**Present Mission:** Research on management of shrimp, sea turtles and coastal wetlands.

**Present Director:** Roger J. Zimmerman, Ph.D.

**Employees:** 75 (35 federal, 27 contract, 13 students/volunteers)

**Annual Budget:** \$6.6 million in 2006 (\$5.4 million NOAA funds)

**Facilities:** Over 55,000 square feet of offices and laboratories in 10 buildings with

a 130,000-gallon seawater system. Research space is shared with Texas

A&M University.

**Programs:** At Sea Fishery Observers, Shrimp Stock Assessment, Bycatch

Characterization, Shrimp Biology, Shrimp Catch Statistics, Monitoring of Sea Turtle and Marine Mammal Strandings, Sea Turtle TED and Longline Research, Essential Fish Habitat Research, Coastal Wetland Restoration,

**Ecosystem Modeling** 

**Organization:** Office of Director:

Administrative Services – Linda Goulter

Research Branches:

Fishery Management Branch - Dr. James M. Nance Fishery Ecology Branch - Dr. Thomas J. Minello

Protected Species Branch – Vacant

# **History of Accomplishments:**

### 1950's

- Instituted a long-term record of U.S. shrimp fishery catch statistics (continuous since 1956).
- Developed a geographic Subarea System for Analyses of Fishery Data in the Gulf of Mexico.

### 1960's

- Conducted early research on red tides.
- Conducted research on life cycles of brown shrimp and white shrimp.
- Reared brown shrimp and white shrimp in captivity from eggs.
- Developed hatchery methods for shrimp aquaculture.
- Conducted early research on shrimp growout pond culture.
- Determined natural immigration patterns of postlarval shrimp in the Gulf of Mexico.
- Developed shrimp tagging methods for migration and population studies.
- Determined salinity and temperature tolerances of postlarval white shrimp and brown shrimp.

#### 1970's

- Conducted comprehensive oceanographic surveys of Gulf of Mexico circulation and bathmetry.
- Initiated the "Headstart" experiment for conservation of Kemp's ridley sea turtles.
- Developed methods for captive rearing of sea turtles.
- Undertook environmental surveys of the Gulf of Mexico shelf for the U.S. Dept of Energy.
- Determined offshore migration patterns for penaeid shrimps in the Gulf of Mexico.

# 1980's

- Initiated use of bait shrimp catch as index of offshore brown shrimp production.
- Issued forecasts of annual yields of western Gulf brown shrimp and Florida pink shrimp.
- Quantified utilization of marsh, seagrass and mangrove habitats by shrimps, crabs and fishes.
- Quantified feeding and protective functions of estuarine wetlands for fishery species.
- Compared ecological value of created versus natural wetlands for estuarine species.
- Determined effects of freshwater inflow on use of Texas marshes by fishery species.
- Developed life-time tagging methods for hatchling and juvenile sea turtles.
- Evaluated Turtle Excluder Devices (TEDs) in shrimp trawls.

### 1990's

- Characterized bycatch from trawl, gill net, fish trap, and longline fisheries.
- Evaluated Bycatch Reduction Devices (BRDs) in shrimp trawls.
- Developed an ecosystem-based shrimp fishery bycatch model.
- Tracked movements of sea turtles through satellite, radio and sonic telemetry.
- Conducted design criteria research on seagrass and marsh habitats beneficial to fisheries.
- Studied effects of marsh habitat management and restoration on fisheries production.
- Established parameters for evaluation of essential fish habitat in the Gulf of Mexico.
- Confirmed nesting of 10 year-old Headstarted Kemp's ridleys on Padre Island.

### 2000's

- Initiated coral reef research in the Gulf and Caribbean.
- Supported Community-based Habitat Restoration in Texas and Louisiana.
- Examined impacts of fishing on shelf habitats.
- Initiated Ecopath modeling for Ecosystem based fishery management.
- Began GIS mapping and analyses of essential fish habitats (EFH).

# **Research Partners and Cooperators:**

Coastal Bend National Estuary Program,

Ecuador Instituto de la Pesca.

Florida Department of Environmental Protection,

Galveston Bay National Estuary Program,

Galveston Bay Foundation,

Galveston Independent School District,

Gladys Porter Zoo,

Gulf & South Atlantic Fisheries Development Foundation, Inc.,

Gulf of Mexico Fishery Management Council,

Houston Zoo,

Mexico Departamento de la Pesca,

Moody Gardens Aquarium,

New England Aquarium,

Louisiana Department of Wildlife and Fisheries,

Louisiana State University,

Port of Houston Authority,

Scenic Galveston,

Texas A&M University,

Texas Marine Mammal Stranding Network,

Texas Parks and Wildlife Department,

Texas Sea Grant.

Texas Sea Turtle Stranding and Salvage Network,

Texas Shrimpers Association,

University of Houston,

University of Louisiana at Lafayette,

University of Texas,

US Army Corps of Engineers at Galveston and New Orleans,

US Coast Guard at Galveston,

US Department of Interior/Minerals Management Service,

US Environmental Protection Agency/Region IV and Gulf of Mexico Program,

US Fish and Wildlife Service/Environmental Services at Clear Lake, and

US National Park Service at Padre Island National Seashore and Everglades National Park.